

Professional report

**Positioning *Dirkosh Crunch* for growth in
international markets**



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Abbreviations

ADLI	Agricultural Development-Led Industrialization
AGOA	African Growth and Opportunity Act
CAADP	Comprehensive Africa Agriculture Development Programme
GTP	Growth Transformation Plan
NPS	Net Promoter Score
PASDEP	Plan for Accelerated and Sustainable Development to End Poverty
PEST	Political, economic, socio-cultural, technological
SMART	Student Multidisciplinary Applied Research Teams

Executive summary

This report is designed to assist Dirkosh, an Ethiopian enterprise producing teff-based snacks, in their goal of expanding their business to international markets. The research is comprised of three main sections: desk research conducted during fall 2017 into international markets for healthier snacks; in-country consultation in January 2018 as part of the Student Multidisciplinary Applied Research Teams (SMART) program; and further studies carried out in spring 2018, primarily a proof of concept test conducted at the *Vegan Life Live* festival in London, UK, in February 2018 and a stated preference choice experiment conducted online during April 2018.

The analysis is broken down into seven sections, each of which evaluates a different aspect of the challenges currently being faced by Dirkosh and proposes recommendations on how Dirkosh can move forward in mitigating or overcoming these challenges. A market analysis – based on the political, economic, socio-cultural, and technological (PEST) approach – is used to assess the opportunities and challenges facing Dirkosh in international markets and provides a context for Dirkosh to position its product and brand within these markets. The target demographic is defined so that Dirkosh can better develop their communication and strategy to leverage the enthusiasm of their target audience for the product. The report then addresses Dirkosh's core competencies and how the company can better utilize its strengths to grow the business. A lack of financial modelling and investment is currently hampering Dirkosh's potential to export and attract external investors, thus this report highlights the importance of robust accounting and proposes potential sources of funding.

While Dirkosh already manufactures one product, *Dirkosh Crunch*, the company is still working on developing the product itself, as well as its branding and packaging. This report outlines proper

processing procedures that will enable Dirkosh to improve its efficiency, as well as ensure reliable, high-quality product for their distributors and retailers. A branding strategy is also supplied so that Dirkosh can work to build its brand, in online, written and verbal communications, product packaging, and social media. This will assist Dirkosh not only in promoting *Dirkosh Crunch* but also any other products the company develops in future. Finally, the benefits of nutritional labelling and social certification are discussed. This gives Dirkosh better insights into what their potential consumers value, and what they should focus on when marketing their products.

Introduction

Established by Valerie Bowden in 2015, Dirkosh is a socially-conscious enterprise that aims to produce healthy, tasty, quintessentially Ethiopian snack foods for domestic and international markets. Their first product, *Dirkosh Crunch*, has been sold locally in Addis Ababa since 2016. Based on traditional *injera*, a fermented flatbread made from teff grain, *Dirkosh Crunch* is vegan, gluten-free, and oil-free.

Dirkosh Crunch was initially sold in hotels, local markets, and foreign embassies within Addis Ababa. While these outlets were sufficient to demonstrate that there is a market for *Dirkosh Crunch*, they are limited in scope and price potential. Health-conscious and international consumers valued the nutritional benefits, taste, and texture of *Dirkosh Crunch*, but for most domestic consumers, the resemblance to traditional dirkosh – i.e. sun-dried injera produced at home as a low-cost snack – limited their willingness to pay for a pre-packaged, flavored version. For the company to expand their consumer base, make significant profits, and position Dirkosh as a sustainable social enterprise, they need to target the export market.

This challenge seemed an ideal task for a Student Multidisciplinary Applied Research Teams (SMART) project. In May 2017, I was requested by Cornell's Emerging Markets Program to source, develop, and lead a new SMART project. I knew I wanted to run a project in Ethiopia, preferably targeting the emerging international trend of value-added, teff-based products. Dirkosh's attractive web presence, innovative product, and socially-conscious mission made the company a great prospect for a SMART project. Given their current challenges and small management team, Dirkosh was enthusiastic to collaborate with Cornell and SMART. In June 2017, it was agreed that I would lead a group of five students from Cornell in working with Dirkosh

to develop the *Dirkosh Crunch* product and brand for the export market, ahead of an anticipated international launch in 2018. The research was conducted in three main phases: desk-based research in fall 2017, a two-week visit to Addis Ababa in January 2018, and follow-up analysis in spring 2018.

The report is designed to assist Dirkosh in entering international markets. It outlines the challenges currently being faced by the business and how these can be mitigated to promote future growth; analyzes the target market and how Dirkosh can use its core competencies to create a niche for itself in this competitive sphere; formalizes the branding strategy for Dirkosh and *Dirkosh Crunch*, and reports on the results of two studies designed to gauge consumer responses to the product. Finally, it provides recommendations for successfully promoting and selling *Dirkosh Crunch*, both in Ethiopia and abroad. The research was conducted in collaboration with the Ethiopia Dirkosh Crunch SMART team: Samantha Acriche, Zhun Che, Michelle Duong, Kristina Filippini, and Nandini Mehrotra. The six of us are henceforth referred to as “the SMART team”. I am also indebted to Valerie Bowden and SMART Director Ed Mabaya for their assistance and guidance, and to my Advisor, Prof. Ralph Christy, for his help and guidance over the past two years.

Background

Agriculture and agribusiness in Ethiopia

Agriculture and agribusiness are central to Ethiopia’s economic growth. With an estimated 15.9 million farming households (CSA 2014), the country’s socioeconomic progress and impacts on poverty reduction are directly linked to the livelihoods and production of its smallholder farmers and the markets that utilize their products. Agriculture is the major source of income and livelihoods for rural Ethiopians (Abro et al. 2014), who make up 84% of the population, according

to the 2007 census (CSA 2010). Ethiopia is one of the fastest growing economies in sub-Saharan Africa, yet its population still has a relatively low GDP and high levels of food insecurity.

While agricultural growth has increased from 1.3% per year in the 1980s to 6.2% in the 2000s, and made significant contributions to Ethiopia's overall growth, it has been outpaced by the growth of the industrial and services sectors (Dorosh and Rashid 2012; World Bank 2017). In a typical example of structural transformation, the contribution of agriculture to GDP has fallen from 64.1% in 1991 to 35.8% in 2017, while the contribution of services to GDP has increased to from 31.0% to 42.0% during the same period (Dorosh and Rashid 2012; CIA 2018; World Bank 2018a; fig.1). The Government has actively implemented agricultural development policies since 1991, and has witnessed impressive results, but per capita income remains low at \$590, though this is above the average for sub-Saharan Africa (IMF 2016). Poverty rates have fallen from 44% of the population living below the national poverty line in 2000, to less than 30% in 2011; within Africa, only Uganda has had a higher poverty reduction rate during this time (World Bank 2014). If Ethiopia is to continue its strong growth patterns and reduce poverty, the government must build on the results of its previous policies and strategies to implement agricultural development policies that promote growth within the sector, while enabling Ethiopia to transition to a more industrial and service-based economy by supporting small- and medium-sized agribusiness.

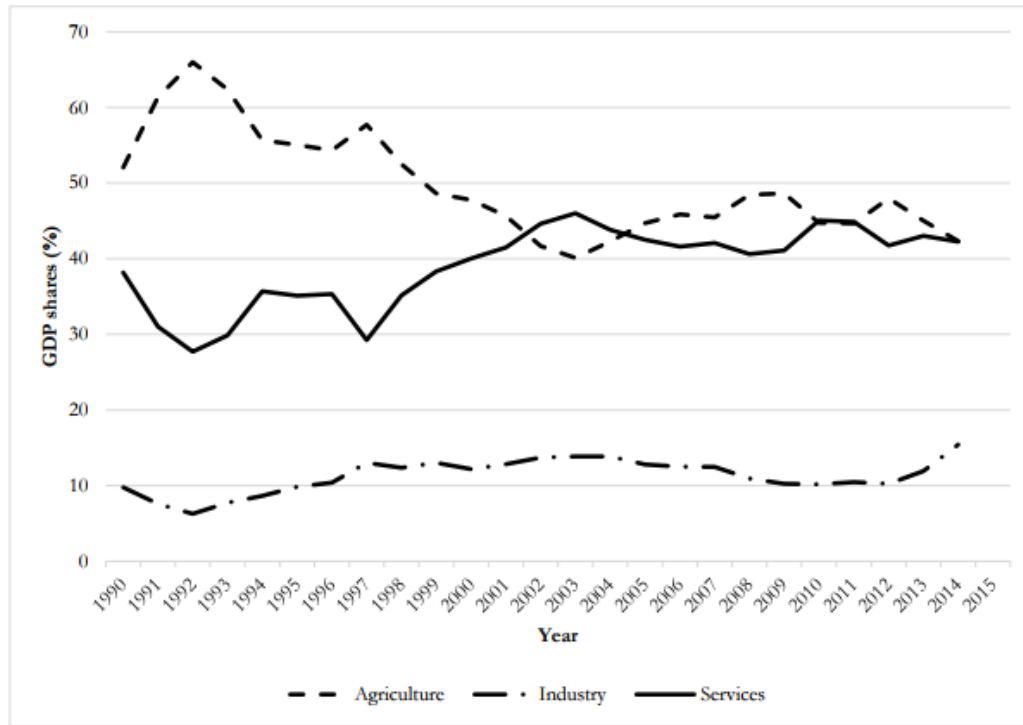


Figure 1. Contribution of agriculture, industry, and services to Ethiopia's GDP. From Seid et al. (2015).

Ethiopia is abundant in both land and labor (Rahmato 2008), and the government has long-recognized that overall national growth and poverty reduction is linked to agricultural productivity. Since 1991, the government has made efforts to liberalize agricultural markets, invest in agricultural research and transport infrastructure, and establish safety net programs (Dorosh and Rashid 2012).

The Agricultural Development-Led Industrialization (ADLI) strategy was introduced by Ethiopia's Transitional Government in 1992. Whereas previous strategies centered on government investments in industry and large farms, ADLI shifted the focus to developing smallholder agriculture, under the premise that improved productivity of smallholder farmers (using domestic raw materials and labor-intensive technology), combined with improved market linkages, will lead to long-run economic and social transformation (Negatu 2008; Dorosh and Mellor 2013). As a

broader reform strategy, ADLI comprised macro policy changes focused on directly or indirectly increasing national food security, such as market orientation, privatization, and devaluation of the exchange rate (Negatu 2008).

During the last five years of the ADLI strategy, the Ethiopian Government simultaneously implemented the Plan for Accelerated and Sustainable Development to End Poverty (PASDEP), which emphasized the commercialization of agriculture and the role of the private sector: promoting high-value crops such as teff and wheat; integrating markets and improving infrastructure for improved rural-urban linkages; and diversifying exports beyond coffee (Teshome 2006; Negatu 2008). Both ADLI and PASDEP were followed until 2010, when they were phased out and replaced by the Growth Transformation Plan (GTP), though these earlier strategies informed and formed the basis of the GTP.

The first phase of the GTP (2010-2015) incorporated agricultural development as part of a larger strategy to encourage large-scale foreign investments, invest in infrastructure and energy projects, develop natural resource and raw material industries, and improve communication services. The Comprehensive Africa Agriculture Development Programme (CAADP) specifies a target annual agricultural growth rate of 6% per year (Dorosh and Thurlow 2009). Between 2000 and 2016, Ethiopia experienced average agricultural growth rates of 6.2%, though there were large annual fluctuations (World Bank 2017). Under phase two of the GTP, Ethiopia aims to become a lower middle-income country by 2025, through average annual agricultural growth of 8% and real growth of 11% during 2015-2020 (Seid et al 2015; IMF 2016; World Bank 2017). In order to achieve this target, GTP phase two focuses on private sector development and encouraging foreign direct investment through investments in transportation, infrastructure, and energy generation to

increase productivity and competitiveness and further stimulate rapid structural transformation (IMF 2016).

The Ethiopian Government has emphasized its mission for small agribusinesses like Dirkosh to contribute to agricultural growth through programs such as ‘Market & Agribusiness Development’. Companies such as Dirkosh are also viewed as important drivers of exports and links to foreign investors (Y. Tafesse, pers comms). However, despite the government’s ambitions for economic growth through continued transformation of the agricultural sector, Ethiopia’s underdeveloped institutions and infrastructure can create barriers that prevent its companies from fully participating in global markets and limit Ethiopia’s attractiveness to foreign investors.

Ethiopia currently ranks 161 of the 190 countries listed on the World Bank’s Ease of Doing Business index, largely due to its complex and lengthy export and import processes, slow and expensive transportation systems, and cumbersome customs procedures (World Bank 2018b). These factors will need to be taken into account as Dirkosh seeks to grow its business via external investors and international sales. Furthermore, the Central Bank of Ethiopia administers a strict foreign currency control regime, and the local currency (birr) is not freely convertible (Lighthizer 2018). Due to chronic shortages in foreign exchange, priority access is given to larger firms, state-owned enterprises or those owned by the ruling party, businesses importing or exporting goods prioritized by government development plans, or emergency food suppliers (Lighthizer 2018). Unless teff exports are specifically targeted by the government, Dirkosh will face challenges in acquiring the foreign exchange required to purchase machinery or other inputs from outside of Ethiopia. However, other businesses have successfully managed to accomplish this, so it is not impossible.

The importance of teff

The core ingredient in the recipe for *Dirkosh Crunch* is Ethiopia's indigenous grain, teff. It is difficult to overstate the importance of teff in Ethiopia. A cereal crop that has been produced in the Ethiopian highlands for thousands of years, it has high nutritional value and strong cultural significance (Viswanath 2012). Teff is rich in fiber, amino acids, calcium, iron, and is gluten-free. Economically, the value of the commercial surplus of teff is equal to the commercial value of Ethiopia's other three staple crops (maize, wheat, and sorghum) combined (Minten et al. 2013). Culturally, teff – primarily in the form of injera - is an integral part of the Ethiopian diet, particularly in urban areas, with many people eating it two or even three times per day. Ethiopia produces approximately 4,300,000 tons of teff annually (Tefera 2016), supplying about 12% of the calories consumed daily by Ethiopians, though this rises to 28% in urban areas (Berhane et al. 2011; FAO 2018).

Teff is so important to Ethiopia that exports of the crop were banned from almost a decade, from 2006 to 2015, largely to combat rapid commodity price inflation within Ethiopia (Viswanath 2012). However, this export ban only applied to unprocessed teff grain, not added-value products such as injera or *Dirkosh Crunch*. Nevertheless, in the attempt to prioritize food security and domestic demand, farmers and agribusinesses were hampered from participating in potentially lucrative export markets that would also contribute to GDP (Viswanath 2012). The embargo was lifted in 2015, when Ethiopia started exporting limited (and tightly controlled) amounts of teff flour to the United States and other foreign markets. The development of an international market for teff benefits a company like Dirkosh because novel foods are more likely to be accepted by consumers if they are associated with familiar, well-liked foods (Tuorila et al. 1994). Thus, if

people are already accustomed to eating teff in some form (e.g. injera) they are more likely to embrace a new but related product such as *Dirkosh Crunch*.

Dirkosh Crunch: Idea to reality

Dirkosh was founded by Valerie Bowden in 2015, shortly after she moved to Ethiopia and transitioned to a vegan, oil-free diet (fig. 2). In a quest to find a chip that fit with her new diet, Valerie came across dirkosh, i.e. traditional injera that is dried in the sun. However, traditional dirkosh is quite sour, thick, and biting into it can result in sharp edges. As a result, Valerie and her business partner (now Husband), Alula, spent several months refining the recipe to create a thin, less-sour chip that adapted to the palette of international consumers. Their idea of a gluten-free, oil-free, vegan *Dirkosh Crunch* was now a reality.

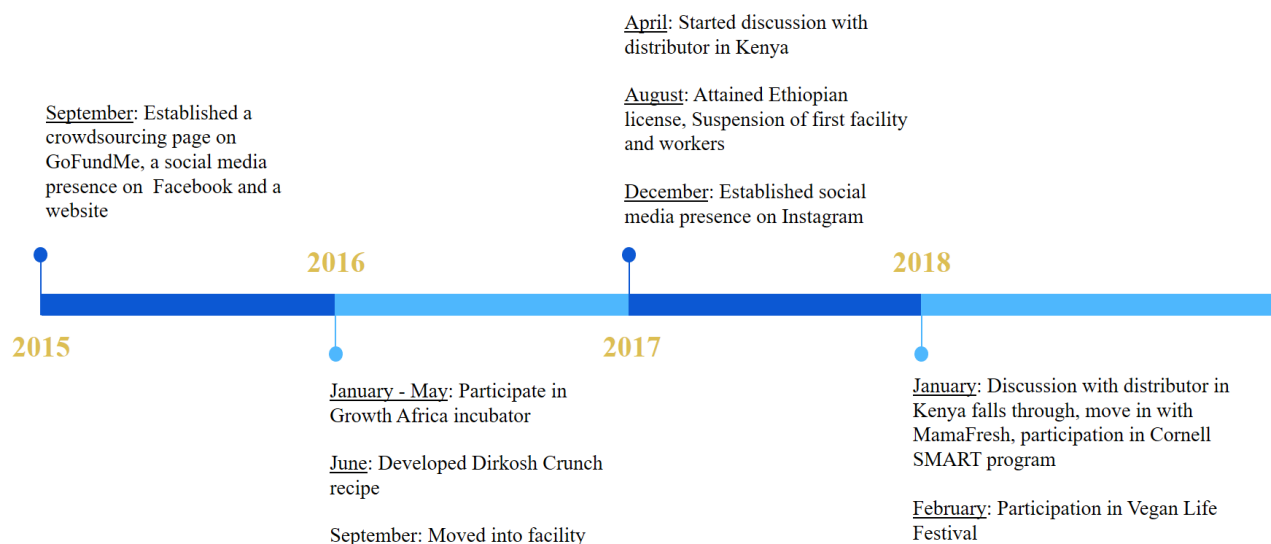


Figure 2. Timeline of Dirkosh business development.

A note on food production facilities: Dirkosh began manufacturing and selling *Dirkosh Crunch* in September 2016. Initially they focused on selling in hotels, embassies, and craft fairs to a small but wealthy market of international consumers and health-conscious Ethiopians. However, in August 2017 Dirkosh were not permitted to renew the lease on their kitchen, which they had made significant renovations to. In Ethiopia it is not uncommon for a landlord to requisition a property once the tenant has made improvements to it. Valerie immediately set out to find alternatives and entered into an agreement with Mama Fresh, a larger Ethiopian business that produces injera and traditional Ethiopian spice mixes. Dirkosh would purchase injera from Mama Fresh and lease their kitchen facilities to transform it into *Dirkosh Crunch*. After a promising start, the Mama Fresh facility was also appropriated at the beginning of January 2018, this time by the government who wanted to use the factory for a women's NGO. Thus, when the SMART visited Dirkosh in mid-January 2018, the company had no processing facility or product, though Mama Fresh had signed a new lease and both companies planned to move in by the end of January. As of April 2018, Dirkosh was using the Mama Fresh facility to produce *Dirkosh Crunch*, though power shortages limited the amount that could be produced.

Methodology

At the outset of the project, Dirkosh planned to begin exporting *Dirkosh Crunch* to the USA in early 2018, and the research plan was developed accordingly. However, in late 2017, Dirkosh was presented with an opportunity to present their product at a vegan fair – *Vegan Life Live* – in London, UK during February 2018. Not only was this an opportunity to introduce *Dirkosh Crunch* to potential customers, it also provided Valerie with the travel resources required to meet with prospective retailers in the UK and learn more about the gluten-free and vegan snack market there. The research methodology was therefore amended between the desk research phase and in-country

consultation to focus on the UK market instead of the US market. However, much of the desk analysis conducted in fall 2017 holds true for both the US and UK markets. Other unexpected challenges detailed in this report also caused the methodology to be refined and developed throughout the process.

Desk research

In fall 2017, I researched and wrote a report on Ethiopia's policies for development of its agriculture and agribusiness sectors, which informed the context for this project. The entire SMART team then developed a pre-departure assignment comprising market research and a political, economic, socio-cultural, and technological (PEST) analysis of the US export market. Research was also conducted into rival products in terms of their nutritional basis, branding, and price point. While most of the market research pertained to the US, Dirkosh's target market at that stage, much of it is also applicable to the UK market.

In-country consultation

The SMART team travelled to Ethiopia during January 7-21, 2018. The original objectives of this trip were to meet with Valerie and brainstorm her long-term vision for *Dirkosh Crunch*; gain a better understanding of the challenges faced by a start-up agribusiness in Ethiopia; visit the production site and provide feedback on *Dirkosh Crunch* flavors for an international palette; and formulate a business plan for exporting the product. Shortly before we arrived, the Mama Fresh facility that Dirkosh was imminently due to move in to was requisitioned by the Ethiopian government, a not uncommon occurrence. While Mama Fresh quickly found another facility, the timing meant that Dirkosh was without a production facility or any product for the duration of the

in-country consultation. Furthermore, the upcoming, unexpected opportunity to launch the product at *Vegan Life Live* meant that we readjusted our focus to prepare Dirkosh for this important event.

Nevertheless, the trip proved very useful for gaining a better understanding of the realities of operating a small, foreign-owned business in Ethiopia. We met with the Director of Private Sector Development in Agriculture and the Teff Enhancement Senior Project Officer at Ethiopia's Agricultural Transformation Agency, as well as undertaking a field trip to Debre Zeit to observe Ethiopia's diverse landscape and interact with local farmers. In Addis Ababa, we met with Valerie almost every day to guide our workplans, update her on ongoing analysis, and brainstorm ideas. After an initial company assessment, the following objectives were proposed for the in-country consultation:

- i. Build a strong brand image and strategize marketing to highlight the product's competitive edge in an established snack market.
- ii. Provide market research and customer segmentation recommendations.
- iii. Develop possible strategies for fundraising.
- iv. Identify import regulations for the UK market.

Proof of concept

Dirkosh's 'Chief Cruncher', Valerie Bowden, travelled to London in February 2018 to present *Dirkosh Crunch* at the *Vegan Life Live* festival and meet with potential retailers of the product. This was an ideal opportunity for us to further research the preferences of the target demographic, so the team designed a survey for Valerie to conduct during the festival (appendix 1). Valerie asked visitors to her stall who tried *Dirkosh Crunch* to complete a short questionnaire on how likely they would be to purchase *Dirkosh Crunch* or recommend the product to a friend, how much they would

be willing to pay for a bag of *Dirkosh Crunch*, as well as demographic information. A total of 102 people completed the survey during the festival. After 44 people had completed the online survey designed by the SMART team, the venue lost internet connectivity. Valerie then opted to use an offline survey service for the subsequent 56 people who offered to take the survey. While summary data was made available for this offline service, the cost of acquiring the full dataset proved prohibitively expensive for Dirkosh. Thus the dataset comprises full data for 56 respondents, and summary data for 102 respondents.

Choice experiments

Stated preference choice experiments can be used to identify willingness to pay for new products and also indicate consumer preferences for product attributes such as specific nutritional elements, origin information, or participation in a certification scheme such as Fairtrade. As Dirkosh prepares to launch their first product in international markets, it will be important for them to know the attributes that are most valued by their target demographic. A total of 97 participants completed an online survey designed to assess their preferences for the *Dirkosh Crunch* teff chip vs. an alternative healthy chip (“Plentils”), and their willingness to pay for these products (appendix 2). Each respondent was presented with four choice sets and were asked to select one of three chip options, or state that they would not purchase any of them. Each choice set contained two *Dirkosh Crunch* product and one *Plentils* product. For all three options the price (\$1.50, \$2.00, or \$2.50), nutrition labeling, and social certification labeling was varied. Respondents were instructed that all other product attributes were the same.

We used a conditional logit model to assess the value that potential consumers place on chips that are marketed as “vegan, gluten-free, oil-free”, and those that are branded with the “Fair Labor

Practices and Community Benefits” logo, which is a certification that validates socially responsible practices in agricultural production and processing. Controls were added for gender and education level. This will help Dirkosh to gauge the suitable price point for *Dirkosh Crunch*, assess what nutritional information should be displayed on the packaging, and determine whether the benefits of obtaining a certification outweigh the costs of doing so, which can be significant for a small company like Dirkosh.

Analysis

Market research

The international snack market is notoriously competitive and tends to be dominated by large, established companies. In the USA, for example, the \$10 billion salty snack market is dominated by six companies – PepsiCo, Private label, Kellogg’s, Mondelez, Kraft, and Snyder’s Lance – that account for 66% of the market share (PepsiCo 2018). This trend is observed even more strongly within the US potato chip market, where one company – Frito Lay – accounts for approximately 59% of chip sales and owns five of the ten most successful brands of potato chips in the US (Grocery Headquarters 2018).

Dirkosh will inevitably face high barriers to entry into the snack food market as it competes with these major international companies. *Dirkosh Crunch* is a unique product but the brand will need to distinguish itself from other healthy chip alternatives and convince people who might traditionally buy *Lays* or *Pringles* to switch to this new, healthier product. There is promising evidence that the market is becoming more receptive to new entrants and that the days of domination by just a few companies is limited. According to Hall et al. (2016), while the 25 largest food and beverage companies accounted for 45% of industry sales in the US in 2015, they drove

only 3% of growth from 2011-2015. Meanwhile, up to 20,000 small, entrepreneurial companies outside of the top 100 were responsible for driving 49% of within-category growth (Hall et al. 2016).

Similar growth trends are being observed in the “superfood” snack market. While the term “superfood” is neither legally protected nor officially defined, the English Oxford dictionary describes superfoods as “a nutrient-rich food considered to be especially beneficial for health and well-being”. Some of the most common superfoods include almonds, salmon, kale, goji berries, seaweed, and ancient grains such as chia, quinoa, spelt, and teff. While little information is available regarding international sales of teff products, between 2014 and 2015 the number of product launches worldwide for chia, quinoa, and spelt increased by 77%, 36%, and 16%, respectively (Mintel 2018a). This demonstrates that there is increasing demand for snacks based on ancient grains, but it also highlights the high level of likely competition as other companies try to move into this lucrative space. Large, established companies are already developing and launching products that aim to appeal to evolving consumer tastes. Kellogg acquired Kashi, a Californian natural food company, in 2000 and is now selling teff snacks (“Teff Thins”) under this brand, while its venture capital arm, 1894, is investing in Kuli Kuli, a start-up selling snacks and beverages that utilize the superfood moringa as an ingredient (Daneshkhu 2017).

To compete in this international market, Dirkosh must be able to properly define its niche and align both its product and branding to the target demographic. The high costs for premium shelf space in larger grocery stores of the US and UK can make in-store exposure prohibitively expensive for small companies like Dirkosh. Fortunately, Dirkosh has access to other retail channels such as online retailers, specialist markets/fairs, and independent health food stores. These outlets also have the advantage of communicating more personally with suppliers via email,

which would allow Dirkosh to gain a more real-time sense of market demand. Smaller health food stores or markets may be easier to form relationships with and would likely be willing to feature *Dirkosh Crunch* in their stores if they believe in the product. This type of support could include distributing free samples for potential consumers to try so that they can experience *Dirkosh Crunch* without investing in a purchase. Even if these consumers do not end up purchasing the product themselves, they may recommend it to friends or family. The online retailer Storimarket (<https://www.storimarket.com/>) has also expressed interest in stocking Dirkosh products, once the *Dirkosh Crunch* production line is more established and reliable.

Defining the demand

Dirkosh Crunch is a multifaceted product that appeals to a niche but rapidly growing market. It became apparent during the in-country consultation that Dirkosh had not yet segmented and defined its target market. Not only does this limit the company in its ability to focus its product development and branding to the market where it is likely to have most impact and success, knowledge of the target demographic is also a core component of any pitches to potential investors. To remedy this, the SMART team conducted a market segment analysis and identified the following core demographics for *Dirkosh Crunch*:

- **Women aged 23-45.** Consumers aged 23-45 are the most likely to snack four or more times per day (Mintel 2018b), while women tend to also snack more but snack specifically to fulfil specific criteria such as taste or health benefits (Wansink et al. 2003; Hess et al. 2016). Thus, there is a greater chance that women of this age would opt for a healthy snack like *Dirkosh Crunch* with greater frequency.

- **Busy, affluent, urban.** We postulated that busy, working consumers (the SMART team is a prime example) have a high demand for healthy snacking options. This demographic has greater disposable income and may prefer innovative, specialty food products.
- **Socially and nutritionally conscious.** *Dirkosh Crunch* caters to nutritionally conscious consumers (specifically those with vegan or gluten-free diets). Furthermore, Dirkosh's mission aligns with consumers who value sustainability and social impact. The extent to which consumers prefer these options or are willing to pay more for them is discussed in the results of the choice experiments.

Once the target demographic was defined, it was important to gain a better general understanding of their preferences and views towards *Dirkosh Crunch*. This is another vital piece of information for Dirkosh to pitch to potential investors. As outlined in the methodology, a total of 102 people completed either an online or offline survey at the *Vegan Life Live* festival in February 2018. Summary statistics for the data acquired in this proof of concept survey are given in figure 3. Note that the willingness to pay is given in Great British Pounds (£) because this study was conducted among consumers in the UK.

Of the respondents, 79 (77%) were female and 22 (22%) were male. A total of 70 (69%) respondents were within the target demographic age range of 23-45 years old. We estimate that approximately 55% of all respondents would be classed as the target demographic, i.e. female between 23-45 years old, based on the full data subsample. Participants expressed very positive reactions to *Dirkosh Crunch*, with 80% of people indicating that they would be very likely to recommend the product to their friends and family, and 91% indicating they would probably or definitely purchase the product themselves. Most respondents (67%) would not pay more than £1.99 (approximately \$2.69) for a two-serving (60g) package of *Dirkosh Crunch*. T-tests on the

full data sub-sample indicated that there was no difference between males' and females' average likelihood to recommend *Dirkosh Crunch* to their friends and family, nor in their average willingness to pay, though it should be noted that the sample size was very small, particularly for male respondents in the full data subsample (n = 10).

The survey was also designed to enable calculation of the Net Promoter Score (NPS), which ranges from -100 to 100. NPS is a metric proven to measure customer satisfaction and loyalty, and has also been shown to correlate with business growth (Reichheld 2003). *Dirkosh Crunch* received an NPS score of 61, which is well above the score for "excellent" (50). However, a single NPS score is not particularly helpful in charting business growth and long-term customer loyalty. Dirkosh should take this NPS score as a baseline and aim to conduct further studies in the future to monitor their progress with consumers.

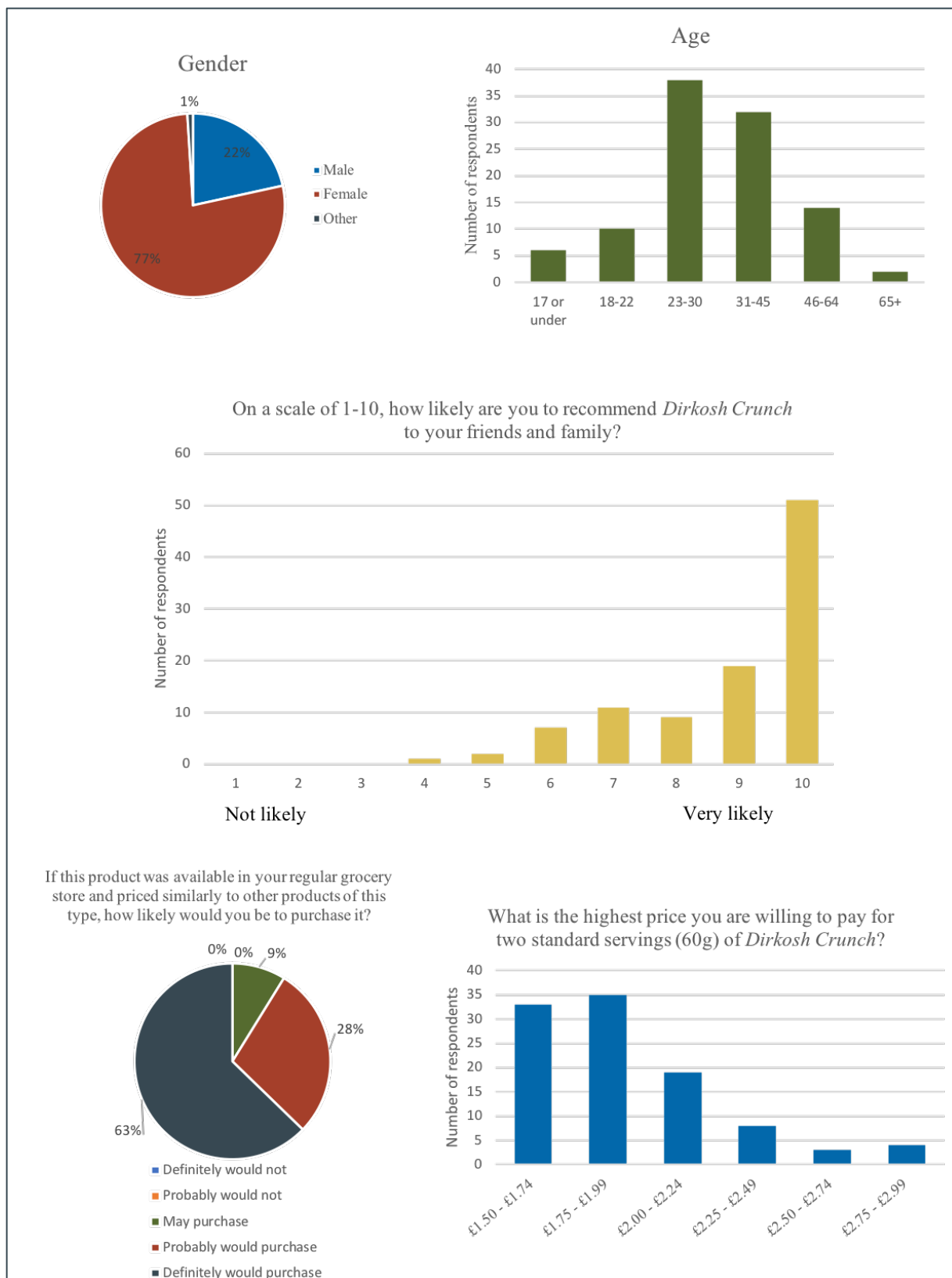


Figure 3. Summary statistics of data collected from consumers at the *Vegan Life Live* festival, London, UK.

Core competencies

During the in-country consultation, the SMART team determined that Dirkosh possessed many skills and characteristics that could distinguish them in the marketplace, but that they were not fully aware of these competitive advantages and how to leverage them. The team therefore decided to conduct a core competency analysis to help Dirkosh become aware of the things that they do uniquely well, which will help to distinguish them from their competitors.

Core competency: Human capital
<ul style="list-style-type: none">• <i>Energy:</i> The management are passionate about Ethiopia. They are resilient and always motivated and excited about Dirkosh.• <i>Management ability:</i> The close-knit, small team of local employees creates a community. In such a small team, it is easy for management to oversee production to maintain product quality and authenticity.
Core competency: Product
<ul style="list-style-type: none">• <i>Multifaceted:</i> <i>Dirkosh Crunch</i> is a product that caters to multiple demographics. It is an ideal product for people with dietary or nutritional restrictions, who typically pay more for specialist products (Alderman 2009).• <i>Authentic:</i> The product is manufactured in Ethiopia and retains components of traditional Ethiopian cuisine while brining an innovative twist. All ingredients are sourced locally and <i>Dirkosh Crunch</i> is hand-crafted by Ethiopian women.
Core competency: Company

- *Supply chain*: The location of the business is well suited for production and local sourcing of ingredients, enabling the company to have a personal relationship with its raw ingredient suppliers. The supply chain is short, which helps realize a bigger profit margin at the point of sale.
- *Ethics*: The Dirkosh business model is founded on social impact and has the potential to contribute to Ethiopia's economic and social development. The management are socially and environmentally conscious, as evidenced by their desire to create "partnerships" between Ethiopian producers and international consumers.

Financing to build the business

As *Dirkosh Crunch* evolved from idea to reality, the Dirkosh management typically focused on marketing and product development, rather than monitoring finances and revenue streams. There was no record of monthly costs, revenues, and profits, which prevented the company from comparing or analyzing performance benchmarks to evaluate the profitability of the company or the effectiveness of any changes made to the company or its products. This lack of financial records or planning was also a detriment during investor meetings or pitches, as the company could not adequately explain its monetary value proposition.

Dirkosh needs to prioritize an evaluation of their financial history and current financial status, so that they can conduct financial modelling and create a financial plan that can be presented to investors. As the company looks to expand production and export to other countries, it is vital that they develop a sustainable source of financing as soon as possible. As previously mentioned, navigating the infrastructure in Ethiopia can be very costly. Dirkosh will need a source of foreign

exchange to purchase new, larger ovens and packaging. Furthermore, local currency capital is required to purchase raw materials and sustain day-to-day business operations. This lack of financial record-keeping and sustainable financing is currently an impediment preventing Dirkosh from reaching its full potential.

Dirkosh has previously explored financing options through venture capital firms, angel investors, grants, microfinancing, and personal or business loans in both the US and Ethiopia. However, each option came with certain difficulties. Venture capital firms tend to invest in larger companies with capital needs of at least US \$500,000, whereas Dirkosh needs approximately US \$20,000 for immediate capital expenses that would allow them to export. Meanwhile international angel investors are often to hesitate to invest in emerging economies such as Ethiopia because the currency exchange laws and general strict governmental regulation of foreign investors and taxation could make it very difficult for them to recoup their investment. Grants can have long timelines for requests and processing, and can be very competitive, often receiving hundreds of applications for a grant to fund 4-5 companies. While microfinancing initially seemed like an attractive option due to the small loan sizes and (in some cases) non-profit nature of lending, most microfinancing institutions prefer to directly fund smallholder farmers or small, Ethiopian family businesses. Furthermore, microfinancing through a local or national institution would result in a loan in Ethiopian Birr, which could not be exchanged for the foreign currency (USD or Euros) required to purchase equipment from abroad. Finally, it is difficult for Dirkosh to obtain a loan either in the US or Ethiopia because they do not currently have enough personal or business assets to provide sufficient collateral for the loan.

The SMART team proposed the following financing options for Dirkosh to consider:

- **Financing via trade fairs/festivals.** Not only do events like the *Vegan Life Live* festival allow Dirkosh to sell their product (gaining premium price revenue in a foreign currency) and interact with potential consumers, they are also a potential source of larger, sustainable funding sources. Investors (small or large) with specific interests in nutrition or specialty snacks may attend these events looking for the “next big thing”. For Dirkosh to attract investors at these type of events, they will need to have a strong product and business pitch and treat every person as valuable, either as a potential investor or customer.
- **Distributors as co-investors.** Dirkosh previously came close to setting up a deal with a distributor in Kenya, but this fell through when the distributors made unreasonable demands on the control of the sales and business. However, this is potentially a viable option for future export strategies, if Dirkosh can find the right partner. During the trip to London for *Vegan Life Live*, Valerie took the opportunity to meet with potential distributors in the UK. This is a good approach and Valerie should continue to take advantage of opportunities to meet with potential business partners, especially stores or businesses that take pride in supporting smaller business enterprises and may be able to provide additional capacity building or financial support. When doing so, it is important to gain a comprehensive view of the partners’ expectations and approach so as to avoid unpleasant surprises later on.
- **Personal contacts.** While unknown angel investors may be hesitant to invest in a small Ethiopian enterprise, small-scale investors with personal connections to Dirkosh or Ethiopia may be more willing to take the risk. Valerie should utilize her existing personal contacts (e.g. her contact at the investment firm in London), as well as attend events for

entrepreneurs or those run by incubators (e.g. BlueMoon in Addis Ababa) to leverage the personal aspect of her business.

Developing the product and processes

When the SMART team visited Dirkosh in January 2018, the company had yet to standardize the *Dirkosh Crunch* manufacturing process or conduct food safety analyses. Standardization ensures uniformity in a business's products and services by applying appropriate standards. This process also helps to increase resource use efficiency by reducing waste. Without proper process and product development, Dirkosh will not be able to ensure quality standards for large-scale production. Cutler et al. (2003) outlined five challenges that need to be overcome in order to prepare food in one place and have it consumed elsewhere:

- **Control the atmosphere** to prevent spoilage via premature ripening (for fresh produce) or staleness (in the case of Dirkosh Crunch chips and the spices used to flavor them).
- **Exclude micro-organisms** via the use of e.g. plastic wrap or hydrogen peroxide sterilization.
- **Preserve flavor** by using chemicals that prevent food flavors from migrating to the packaging or vice versa. These chemicals can be in the packaging rather than in the product.
- **Control temperature.**
- **Control moisture** via improved packaging.

Dirkosh can use the production and processing standardization model shown in figure 4 to address specific needs of the manufacturing process. This will help Dirkosh to finalize their recipes for the

various flavors of *Dirkosh Crunch* and assess the suitability and sustainability of long-term suppliers of raw materials, particularly flax seeds, mitmita spice blend, and garlic powder.

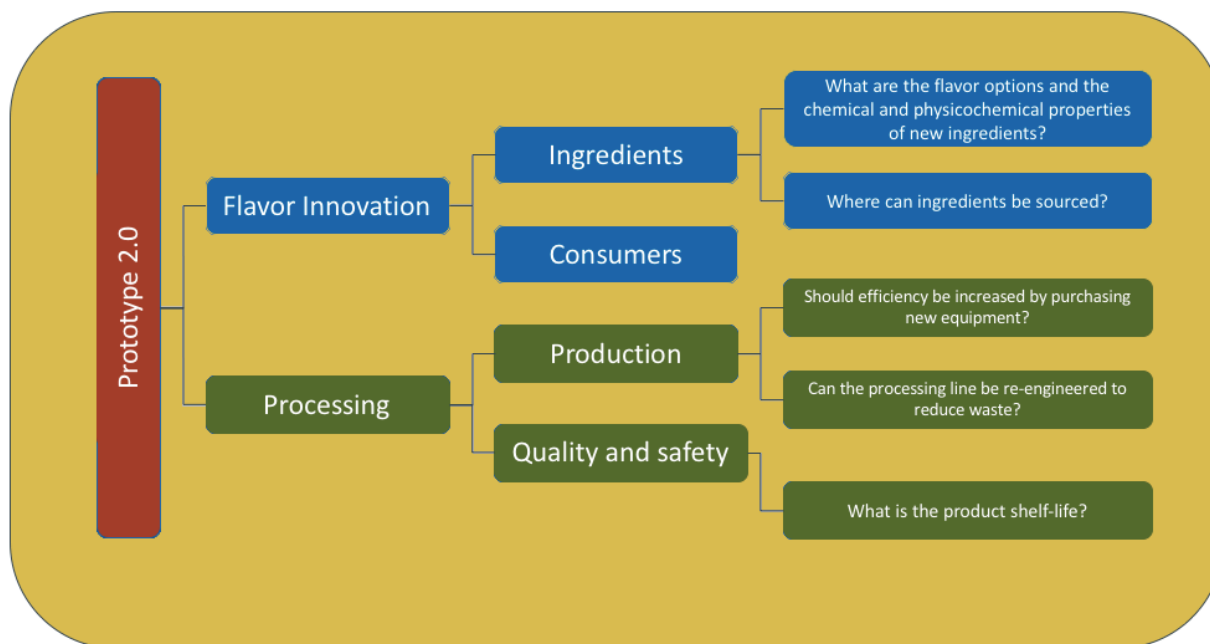


Figure 4. Production and processing standardization model for *Dirkosh Crunch*.

In order to sell products in the international market, Dirkosh will also need to have a thorough knowledge of, and adhere to, specific regulatory requirements of the export market. Time and attention will be required as the company transitions from relaxed domestic guidelines to strict international protocols. Product standards and codes of practice assist manufacturers in producing commodities that meet the minimum specifications for quality and safety. In 2014, the US published new food safety guidelines, the *Food Safety Modernization Act*, that requires all internationally-manufactured product to abide by the set of certified safety guidelines followed by domestic manufacturers (US FDA 2018). These new regulations pose additional risks for Dirkosh because they transfer responsibility of product safety throughout the value chain – from raw ingredients to consumer – to the manufacturer. Dirkosh currently purchase their raw ingredients from a variety of uncertified vendors in Addis Ababa. The quality, safety, and supply of their

ingredients are therefore not guarantee and place the company at risk of additional international scrutiny. Dirkosh can mitigate against these risks by working with Mama Fresh to source raw ingredients, as Mama Fresh is a more established company that has already met export requirements. This will enable Dirkosh to meet the most important processing requirements of specification, uniformity, and optimization. Whether exporting to the US, the UK, or the European Union, Dirkosh will need to consider the following requirements:

1. **Registration and import license:** Tariff classification; customs clearance; import duties.
2. **Safety requirements:** Facility certification; certificate of analysis conducted by third-party testing for all listed ingredients; food safety plan for the company (including a prerequisite plan, preventative controls, process flow diagram as shown in figure 4, *Safe Quality Food* quality plan, and a recall plan).
3. **Packaging and container requirements:** Certified food surface contact; maximum tolerable error.
4. **Labelling requirements:** Allergen labelling; legal nutritional claims; comprehensive ingredient listing; product description; nutritional profile; text size, position, and language clarity.

Branding Dirkosh for the export market

It was clear to the SMART team that – despite their enthusiasm and clear commitment to Ethiopia’s economic and social development – Dirkosh lacked defined missions and values. As a result, they lacked the foundation on which to build their brand, and their marketing and branding messages were often contradictory and ineffective.

Dirkosh has a genuine commitment to Ethiopia and a foundation for their social mission. They also have an existing active social media platform for customer engagement. However, across their website and social media, and in interviews with the press, they provided inconsistent information about their company, inaccurate or unconfirmed statements about nutrition and social impact, and branding was inconsistent across their social media platforms. For example, “Eat Dirkosh”, “Dirkosh”, and “Dirkosh Crunch” were used almost interchangeably when referring to the company, the product, or the website, and there seemed to be confusion over the flavor names and the number of ingredients in each one. Similar, on the GrowthAfrica website (<http://growthafrica.com/healthy-snack-inspired-tradition-meet-ethiopias-dirkosh-crunch/>), Valerie is quoted as claiming “We proudly manufacture entirely in Ethiopia by our competent female staff. This creates ~~six~~ times more impact in the community than exporting the raw materials only.” While on the Dirkosh GoFundMe website, a graphic stated “**Five** times more impact than exporting raw materials,” and on their website video Valerie says “**Four** times more impact”. Not only are these statements direct contradictions, it’s unclear how this impact is calculated or what it really means.

The SMART team therefore devised a branding and marketing strategy for Dirkosh and its products, the first of which is *Dirkosh Crunch*. This strategy is underpinned by two fundamental tenets:

1. **Consistency.** There needs to be a clear, focused branding message across the company and its products. Everything associated with Dirkosh should have strong brand identification and there should be uniformity in information across the various platforms of communication. For example, the number of ingredients quoted for one specific flavor must remain the same, unless the recipe has been publicly changed. Focus on the simple

ingredients used for the injera base and highlight the local, bold spices used for variety and added flavor. When explaining the chips, Dirkosh representatives can describe them by saying “*our chips have simple ingredients. We start with a teff grain base with just four ingredients and add local, bold spices for variety.*”

2. **Accuracy.** All statements must be factual and up-to-date. They must meet legal and regulatory standards before they are published online, stated in interviews, or displayed on packaging. As the company has had previous problems with prematurely announcing business developments that have then not materialized, they should ensure that new partnerships or agreements are finalized before this information is publicly announced.

In collaboration with Dirkosh management, the SMART team proposed a re-defined mission that will guide future marketing, branding, communication, and company development. Dirkosh aims to:

1. Create simple and healthy teff-inspired snacks for on-the-go, adventurous, vegan, and gluten-free consumers;
2. Provide a community that empower undervalued local women in Ethiopia; and
3. Generate a deeper understanding and appreciation for Ethiopia and its vibrant people and culture.

The team also suggested a series of talking points that Dirkosh representatives can use to emphasize the unique qualities of the product. This language should be used when talking to anyone about Dirkosh or *Dirkosh Crunch*, whether they are potential investors, customers, fellow entrepreneurs, or product retailers. *Dirkosh Crunch is....*

- A **modern spin** on a traditional Ethiopian dish

- An **irresistible** teff-based chip
- A **unique exploration** into Ethiopia's **vibrant cuisine**
- Its **innovative recipe** delivers both an **authentic Ethiopian experience** as well as a **nutritional boost** to your diet
- The flavors of *Dirkosh Crunch* are **bold**

These attributes tie in to the new slogan proposed for *Dirkosh Crunch*:

Crunch Simply. Crunch Sustainably.

To help ensure consistency across Dirkosh's branding and web presence, the SMART team formulated a color palette that the company can utilize moving forward (fig. 5).

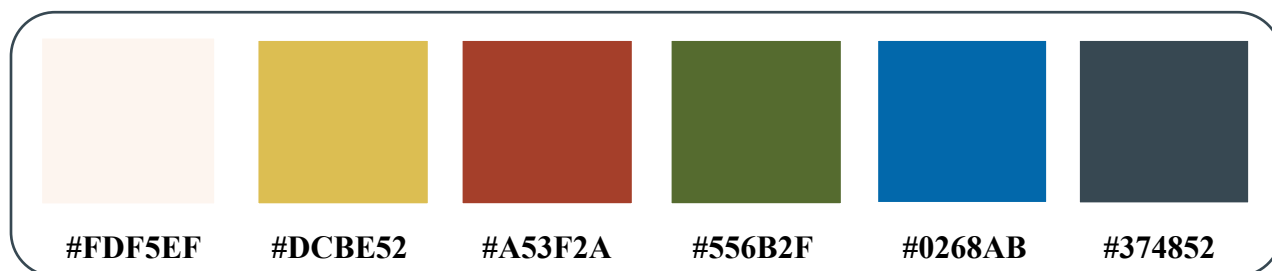


Figure 5. Branding color palette for the Dirkosh company and its products, including *Dirkosh Crunch*.

It should be noted that – following the visit from the SMART team – Dirkosh immediately implemented several of these recommendations. The Dirkosh website (www.eatdirkosh.com) now features the color palette, mission, and pitching language that the team recommended. They have also made efforts to remove contradictory or unclear language and claims, and have aligned their social media (primarily Instagram and Facebook) with the branding strategy. The final branding

goal we recommend therefore is to choose the launch flavor and finalize the packaging design and material.

The *Vegan Life Live* festival was an ideal “soft launch” opportunity for Dirkosh to trial their new branding and marketing strategy, as well as conduct the proof of concept surveys and gauge consumer response to *Dirkosh Crunch*. We designed a banner (fig. 6) for Dirkosh to use at the festival, with the correct branding, colors, and images. This banner can also be used by Dirkosh at future events.

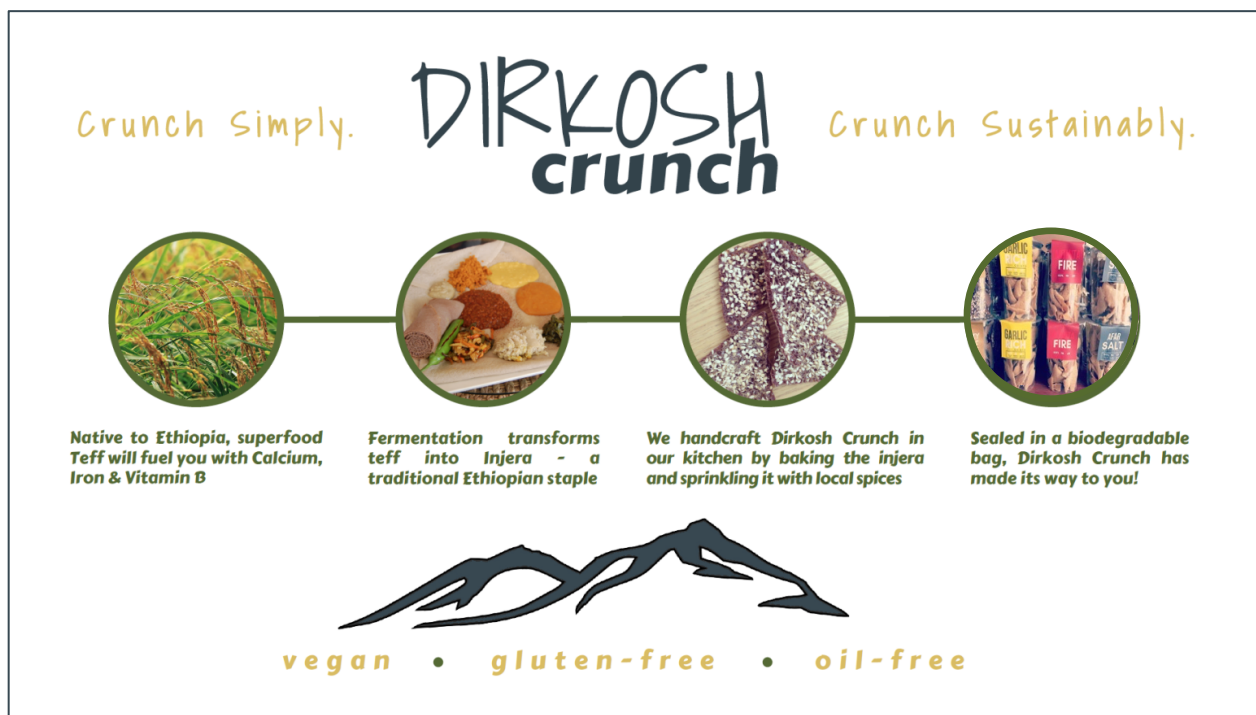


Figure 6. A banner designed by the SMART team for Dirkosh to use at the *Vegan Life Live* festival and future events.

As Dirkosh still needs to formally decide on their package for *Dirkosh Crunch* (products for sale within Ethiopia were presented in simple plastic bags not suitable for the international market), the SMART team also designed a prototype package that Dirkosh can work with moving forward (fig. 7).

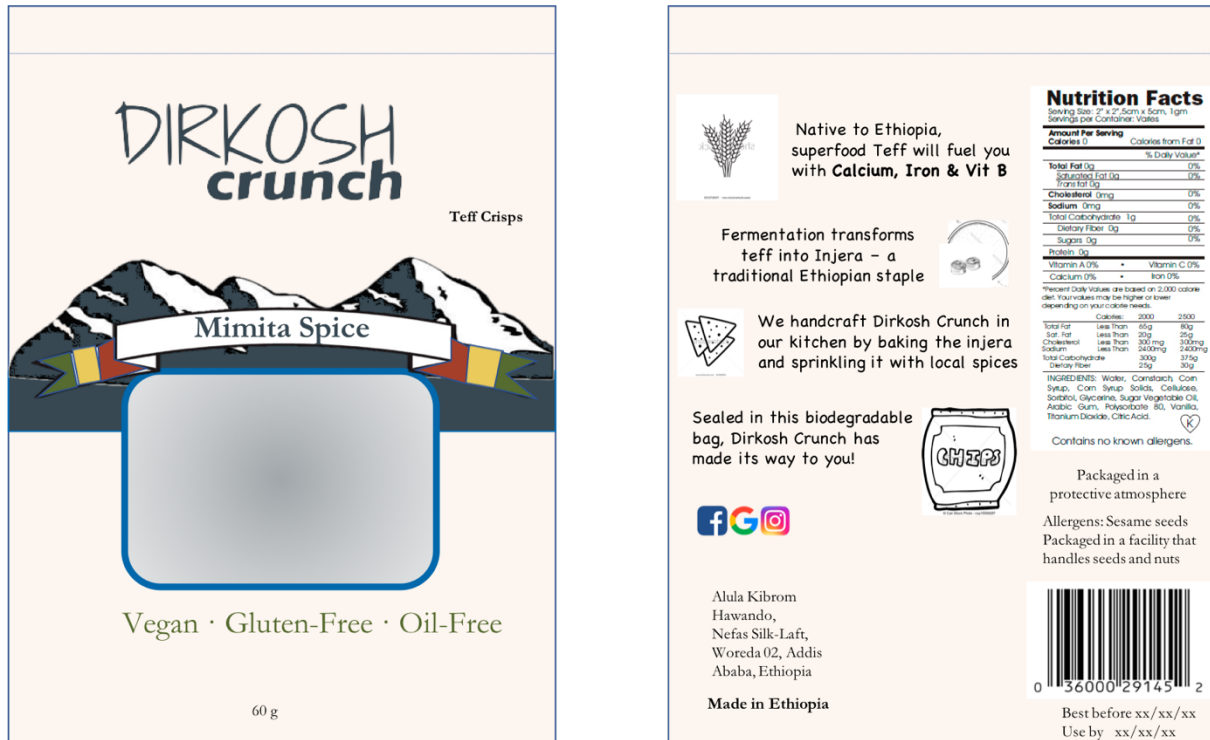


Figure 7. Prototype packaging for *Dirkosh Crunch*.

What's in a label?

One of the most important points for Dirkosh to consider on their packaging is what information they choose to display. *Dirkosh Crunch* is a vegan, gluten-free, oil-free product produced using sustainable, fair labor practices, but different consumers will place different values on these attributes. As described in the methodology section, we conducted a stated preference choice experiment to determine how label information regarding nutritional information and social certification affects consumers' willingness to pay. Dirkosh does not currently participate in any certification scheme, and tests such as this one can indicate to the company whether it is worth them undergoing the cost, time, and effort of achieving certified status.

Our dataset comprised 96 respondents, multiplied by four questions with three choices for a total of 1152 observations. Of the respondents, 69% were female and 58% of respondents had

completed at least some graduate school. When distributing the surveys, we consciously targeted females as they are one of Dirkosh's target demographics. When asked how often they currently buy healthy chips, 38% of the sample answered "sometimes" or "often".

Conclusion and recommendations

Dirkosh is a small company poised for growth in international markets, if the company can differentiate themselves from other similar products on the market, secure a source of sustainable financing, leverage their existing brand potential, and develop and promote their product to meet the needs of consumers with or without specific dietary needs. The company currently plans to export to the UK and has made progress towards doing so by participating in the *Vegan Life Live* festival to meet potential consumers and conduct proof of concept surveys, as well as using this opportunity to meet with potential retailers and distributors. Sending products to the UK also helps mitigate against some of the infrastructure and export regulation challenges of Ethiopia as the national airline has a direct, 7-hour flight from Addis Ababa to London. The UK market is well set up to receive a product like *Dirkosh Crunch*, however, as Dirkosh looks to expand its business, it may want to simultaneously consider other markets, such as the US. Both the UK and US have policies in place to promote African businesses. Under the "Everything But Arms" initiative, African businesses gain duty and quota-free market access to the European Union (European Commission 2018). Similarly, in the US, Ethiopian businesses qualify for African Growth and Opportunity Act (AGOA) status, which aims to expand US trade and investment with sub-Saharan Africa to stimulate economic growth, encourage economic integration, and facilitate sub-Saharan Africa's integration into the global economy (Office of the United States Trade Representative

2018). AGOA promotes high-level dialogue on trade and investment-related issues, which should facilitate the entry of a company like Dirkosh into the US snack market.

However, if Dirkosh is to become a successful exporting business, there are several steps they must work through to ensure that their growth is sustainable. First, Dirkosh must source a sustainable, long-term investor to fund the acquisition of necessary equipment and raw materials that will allow them to expand their business. The most likely sources of investment are through trade or specialist fairs, collaborations with distributors, or personal contacts with angel investors. Dirkosh can use the branding strategy and talking points outlined in this report, as well as the pitch deck previously developed by the SMART team, and the financial plan currently being formulated by the company, to pitch to potential investors. This investment will be vital for the second necessary component of their sustainable export strategy, which is to standardize their manufacturing process. This will be facilitated through the purchase of new equipment, which will enable them to manufacture product more efficiently. In combination with the processing framework outlined in this report, Dirkosh can work towards providing a consistent, reliable supply of quality product to their distributors. One key element of this will be ensuring reliable sources of raw ingredients. Dirkosh should make efforts to keep their supply chain short by fostering direct and strong relationships directly with farmers. Smaller supply chains assist in achieving a reliable supply (in terms of timeliness and quality), reduced costs, and a change to encourage eco-friendly practices by providing a market for sustainably-produced teff (leading to triple bottom line impacts). The key things for Dirkosh to remember throughout the production process are: specification, uniformity, optimization.

Unique branding and communications will also be vital if Dirkosh is to achieve success in international markets. The company should focus on embracing the brand ‘Dirkosh’, rather than

Dirkosh Crunch, as this will allow for teff-based product line expansion in the future. The company should also emphasize its origins in Ethiopia. They should highlight the domestic nature of their production value chain, and back this up with verified impact statistics to benefit the brand. Peer-reviewed journal articles are good sources of information regarding the nutritional benefits of teff and the impact of producing domestically instead of outsourcing. When talking and writing about *Dirkosh Crunch*, company representatives should memorize three or four facts about their product, and be mindful of legal definitions of adjectives like “rich in”.

One of the biggest strengths of Dirkosh is its human capital. The founder, Valerie, is passionate, enthusiastic, and capable. To provide a solid support of staff, Dirkosh should invest in the skill, talent, and productivity of all of its employees so that the manufacturing and distribution of *Dirkosh Crunch* becomes increasingly efficient, effective, and scalable. By continuing to employ a purely-female workforce, Dirkosh can highlight the community value they provide. As “Chief Cruncher”, Valerie should also seek to network and develop business connections. It would be beneficial to the company if they were also able to recruit one or two active but part-time partners (or advisory board members) with specialized skills in marketing and finance.

References

- Abro, Z. A., Alemu, B. A., and Hanjra, M. A. 2014. Policies for Agricultural Productivity Growth and Poverty Reduction in Rural Ethiopia. *World Development* 59: 461-474.
- Alderman, L. 2009. *The Expense of Eating With Celiac Disease*. New York Times. Retrieved April 29, 2018 from <https://www.nytimes.com/2009/08/15/health/15patient.html>
- Berhane, G., Paulos, Z., Tafere, K., and Tamru, S. 2011. *Foodgrain Consumption and Calorie Intake Patterns in Ethiopia*. International Food Policy Research Institute, Washington D.C., USA.
- Central Statistical Agency (CSA). 2010. *Population and Housing Census 2007 Report, National*. Central Statistical Agency, Ethiopia.
- Central Statistical Agency (CSA). 2014. *Agricultural Sample Survey 2014/2015 – Volume IV*. Central Statistical Agency, Ethiopia.
- Central Intelligence Agency (CIA). 2018. *The World Factbook*. Central Intelligence Agency, USA. Retrieved April 27, 2018 from <https://www.cia.gov/library/publications/the-world-factbook/geos/et.html>.
- Cutler, D.M., Glaeser, E.L., and Shapiro, J.M. 2003. Why have Americans become more obese? *Journal of Economic Perspectives* 17(3): 93-118.
- Daneshkhu, S. 2017. *Big food groups take healthy approach in battle of the snacks*. Financial Times. Retrieved April 28, 2018 from <https://www.ft.com/content/1dc7eae-de48-11e6-86ac-f253db7791c6>
- Dorosh, P. A. and Mellor, J. W. 2013. Why Agriculture Remains a Viable Means of Poverty Reduction in Sub-Saharan Africa: The Case of Ethiopia. *Development Policy Review* 31(4): 419-441.
- Dorosh, P. and Rashid, S. 2012. *Food and Agriculture in Ethiopia: Progress and Policy Challenges*. University of Pennsylvania Press, Philadelphia, USA.
- Dorosh, P. and Thurlow, J. 2009. *Implications of Accelerated Agricultural Growth in Ethiopia*. International Food Policy Research Institute and Ethiopian Development Research Institute.
- European Commission. 2018. *Everything But Arms*. European Commission Trade Helpdesk. Retrieved April 29, 2018 from <http://trade.ec.europa.eu/tradehelp/everything-arms>
- Food and Agriculture Organization of the United Nations (FAO). 2018. *FAOSTAT Food Balance Sheets*. Retrieved April 27, 2018 from <http://www.fao.org/faostat/en/#data/FBS>
- Grocery Headquarters. 2018. *Leading vendors of potato chips in the United States in 2017, based on sales (in million U.S. dollars)*. Statista. Retrieved April 28, 2018 from <https://www.statista.com/statistics/188220/leading-potato-chips-vendors-in-the-united-states-in-2011/>

- Hall, T., Wengel, R., and Yoon, E. 2016. *Nielson Breakthrough Innovation Report*. The Nielsen Company. Retrieved April 25, 2018 from <http://www.nielsen.com/us/en/insights/reports/2016/the-us-breakthrough-innovation-report-2016.html>
- Hess, J. M., Jonnalagadda, S. S., and Slavin, J. L. 2016. What Is a Snack, Why Do we Snack, and How Can We Choose Better Snacks? A Review of the Definitions of Snacking, Motivations to Snack, Contributions to Dietary Intake, and Recommendations for Improvement. *Advances in Nutrition* 7(3): 466-475.
- International Monetary Fund (IMF). 2016. *IMF Country Report No. 16/322: The Federal Democratic Republic of Ethiopia*. International Monetary Fund, Washington D.C., USA.
- Lighthizer, R. E. 2018. *National Trade Estimate Report on Foreign Trade Barriers*. Office of the United States Trade Representative.
- Mintel. 2018a. *Change in the number of product launches worldwide between 2014 and 2015 by ancient grain*. Statista. Retrieved April 28, 2018 from <https://www.statista.com/statistics/546897/change-in-the-number-of-product-launches-by-ancient-grain-worldwide/>
- Mintel. 2018b. *Global New Products Database*. Retrieved April 28, 2018 from <https://csnews.com/mintel-consumers-snack-self-reward-self-care>
- Minten, B., Tamru, S., Engida, E., and Kuma, T. 2013. *Ethiopia's Value Chains on the Move: The Case of Teff*. International Food Policy Research Institute, Washington D.C., USA.
- Negatu, W. 2008. *Food Security Strategy and Productive Safety Net Program in Ethiopia*. In: Assefa, T. (Ed.) *Digest of Ethiopia's National Policies, Strategies and Programs*. Forum for Social Studies (FSS), Addis Ababa, Ethiopia, pp. 1-22.
- Office of the United States Trade Representative. 2018. *African Growth and Opportunity Act (AGO)*. Office of the United States Trade Representative Executive Office of the President. Retrieved April 29, 2018 from <https://ustr.gov/issue-areas/trade-development/preference-programs/african-growth-and-opportunity-act-ago>
- PepsiCo. 2018. *Savory snack retail sales market share in the United States in 2014, by company*. Statista. Retrieved April 28, 2018 from <https://www.statista.com/statistics/258073/savory-snack-retail-sales-share-in-the-us-by-company>
- Rahmato, D. 2008. *Ethiopia: Agriculture Policy Review*. In: Assefa, T. (Ed.) *Digest of Ethiopia's National Policies, Strategies and Programs*. Forum for Social Studies (FSS), Addis Ababa, Ethiopia, pp. 129-152.
- Reichheld, F.F. 2003. The one number you need to grow. *Harvard Business Review* 81(12): 46-55.

- Seid, Y., Taffesse, A. S, and Ali, S. N. 2015. *Ethiopia: An Agrarian Economy in Transition*. WIDER Working Paper 2015/154. United Nations University.
- Tefera, A. 2016. *Ethiopia Grain and Feed Annual Report*. United States Department of Agriculture Foreign Agricultural Service (USDA FAS).
- Teshome, A. 2006. *Agriculture, Growth and Poverty Reduction in Ethiopia: Policy Processes Around the New PRSP (PASDEP)*. Future Agricultures Consortium.
- Tuorila, H., Meiselman, H.L., Bell, R., Cardello, A.V., and Johnson, W. 1994. Role of sensory and cognitive information in the enhancement of certainty and linking for novel and familiar foods. *Appetite* 23(3): 231-246.
- United States Food & Drug Administration. 2018. *Operational Strategy for Implementing the FDA Food Safety Modernization Act (FSMA)*. United States Food & Drug Administration. 2018. Retrieved January 03, 2018 from <https://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm395105.htm>
- Viswanath, N. The hierarchy of poor: The tension between favoring smallholder farmers or domestic consumers in Ethiopian agricultural development. *African Policy Journal* 8: 30.
- Wansink, B., Cheney, M.M., and Chan, N. 2003. Exploring comfort food preferences across age and gender. *Physiology & Behavior* 79(4-5): 739-747.
- World Bank. 2014. *Ethiopia Poverty Assessment 2014*. World Bank, Poverty Global Practice, Africa Region.
- World Bank. 2017. Agriculture, value added (annual % growth). Retrieved December 3, 2017 from <https://data.worldbank.org/indicator/NV.AGR.TOTL.KD.ZG?end=2016&locations=ET&start=1982&view=chart>
- World Bank. 2018a. *World Development Indicators Database*. Retrieved April 27, 2018 from <https://datacatalog.worldbank.org/dataset/world-development-indicators>
- World Bank. 2018b. *Ease of Doing Business in Ethiopia*. Retrieved April 27, 2018 from <http://www.doingbusiness.org/data/exploreeconomies/ethiopia>

Appendices

Appendix 1: Online survey conducted at Vegan Life Live festival.

Please take 1 minute out of your busy day to take this survey - it'll help further develop our company!
Thank you!

On a scale of 0 - 10 how likely are you to recommend *Dirkosh Crunch* to your friends and family? *

	0	1	2	3	4	5	6	7	8	9	10	
Least Likely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Likely

If this product was available in your regular grocery store and priced similarly to other products of this type, how likely would you purchase it? *

- ☐ Definitely would purchase
- ☐ Probably would purchase
- ☐ May purchase
- ☐ Probably would not purchase
- ☐ Definitely would not purchase

What is the highest price you are willing to pay for two standard servings of Dirkosh Crunch (60g)? *

- ☐ £1.50 - £1.74
- ☐ £1.75- £1.99
- ☐ £2.00 - £2.24
- ☐ £2.25 - £2.49
- ☐ £2.50 - £2.74
- ☐ £2.75- £2.99

What is your gender? *

- ☐ Female
- ☐ Male
- ☐ Other:

What is your age group? *

- ☐ 17 or younger
- ☐ 18 - 22
- ☐ 23 - 30
- ☐ 31 - 45
- ☐ 46 - 64
- ☐ 65 or older

Add your email to receive updates on product launch in the UK!

Appendix 2: Choice experiment survey conducted online in April 2018.

This survey is voluntary. The information you give is anonymous and individual responses will be kept confidential. The survey takes about 4 minutes to complete.

Q1. Please rank these initiatives from 1 to 5 by order of importance (1 being the most important and 5 being the least, please use each number once only):

- _____ Fair Trade movement (1)
- _____ Promoting gender equality (2)
- _____ Farm to table movement (3)
- _____ Veganism (4)
- _____ Healthy eating (5)

Q2. How familiar are you with *Fair Labor Practices and Community Benefits* certifications? (Check only one option)

- ☐ Not familiar at all (1)
- ☐ Not very familiar (2)
- ☐ Somewhat familiar (3)
- ☐ Very familiar (4)

What are *Fair Labor Practices and Community Benefits* certifications?

Fair Labor Practices and Community Benefits certification validates socially responsible practices in agricultural production and processing. It includes comprehensive criteria that directly benefit workers, their families and communities. The program helps ensure equitable hiring and employment practices; safe working conditions; access to health, education, and transportation services; support of local and regional communities; and appreciation of cultural and environmental impacts. All food producers are eligible for certification. Wages and labor conditions are measured and monitored at every point of the supply chain, not only on the farm.



Q3. How familiar are you with gluten-free snack products? (click one option)

- ☐ Not familiar at all (1)
- ☐ Not very familiar (2)
- ☐ Somewhat familiar (3)
- ☐ Very familiar (4)

What are gluten-free snack products?

Gluten-free foods do not contain wheat or any of its derivatives such as rye, barley, spelt, and malt. While potatoes are gluten-free, many traditional types of potato chip are not necessarily gluten free as they may be processed on the same equipment as other products containing gluten, or there may be gluten products in the flavorings used. Healthier, baked “multigrain” or “whole grain” snacks often contain wheat. Consumers seeking to purchase healthier gluten-free snacks therefore often choose chips made from alternative grains or legumes such as corn, lentils, or teff (an ancient grain indigenous to Ethiopia).

Q4. How often do you buy gluten-free snack products?

- ☐ Never (1)
- ☐ Rarely (2)
- ☐ Frequently (3)
- ☐ Whenever possible (4)
- ☐ Don't know (5)

Q5. How familiar are you with vegan food products? (Check only one option)

- ☐ Not familiar at all (1)
- ☐ Not very familiar (2)
- ☐ Somewhat familiar (3)
- ☐ Very familiar (4)

What are vegan food products?

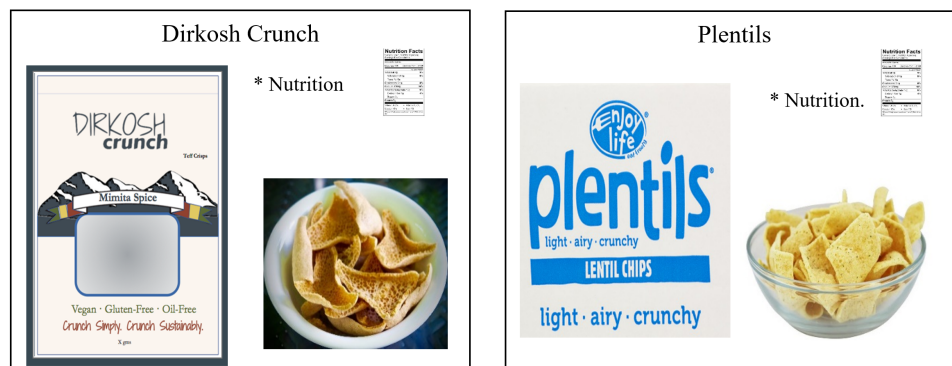
Foods that are not products of animal origin, and in the manufacture, preparation, or treatment of which no ingredients (including additives, carriers, flavourings, enzymes and substances that are not additives but used in the same way and with the same purpose as processing aids) or processing aids of animal origin (processed or unprocessed) have been added or used intentionally. (European Union)

Q6. Are you aware of any vegan snack products?

- ☐ Yes (1)
- ☐ No (2)
- ☐ Don't know (3)

Q7. If Yes, please indicate at least one vegan snack product you are aware of:




For the following section, please imagine you are at your usual grocery store and want to purchase a healthier bag of chips. In each of the following four questions, you will have the choice of two brands of chips. Assume anything not explicitly mentioned in the attributes listed in the box is the same for all options.






Q8 A. Please select one option.

Chips A \$2.50	Chips B \$1.50	Chips C \$2.00	
			I would not buy any of these
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 B. Please select one option.

Chips A \$2.50	Chips B \$1.50	Chips C \$2.00	
			I would not buy any of these.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 C. Please select one option.

Chips A \$2.50	Chips B \$2.00	Click to write Choice 3 Chips C \$1.50	
			I would not buy any of these
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 D. Please select one option.

Chips A \$2.00	Chips B \$1.50	Chips C \$2.50	
			I would not buy any of these
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9. Are you:

- ☐ Male
 - ☐ Female
 - ☐ Non-binary/ third gender
 - ☐ Prefer not to say
-

Q10. Highest education level achieved:

- ☐ High school
 - ☐ Some college
 - ☐ Bachelors/associates degree
 - ☐ Master's Degree
 - ☐ PhD
-

Q11. How often do you buy healthier chips?

- ☐ Never
 - ☐ Rarely (once every few months)
 - ☐ Sometimes (once or twice a month)
 - ☐ Often (one or more per week)
-

THANK YOU!